



MOTION CONTROL

SEE IT BEFORE IT HAPPENS



**MOTOR
POWER**
COMPANY

WHERE DID WE EVER MEET?

Maybe we met before many times already, although you didn't know!

Motor Power Company is involved in the manufacturing or processing of many equipments whose throughput are products or services that all us use everyday: wether you drank a bottle of water that was labelled, filled or capped with our torque motors, or you received a package that was sorted and handled with our motorollers, or even you had a train trip where doors and footsteps were moved by our brushless motors. Motor Power Company was there to ensure products and services to work precisely, smoothly and in a safely.

Pharma

Material handling

Food and beverage
packaging

Precision machining



Trasport

Medical equipments

Semiconductor

Electric vehicles

Robotics

Laser

Plastic

Assembly

Test & Measurements

Discover other
excellence in
other many
industry areas



WELCOME TO MOTOR POWER COMPANY



GLOBAL AND FLEXIBLE APPROACH

Motor Power Company market approach is based on know-how and experience: identify a need and implement a solution. Our long-term investments in the study of motion have created a deep knowledge in all aspects of motion technology. The result is an innate ability to come up with original ideas that distinguishes Motor Power Company and allow design and final performance of our products to stand out in the market.



TOTAL GOVERNANCE

Motor Power Company has acquired extensive know-how through continuous research into motion power and control, that enables to effectively integrate mechanical, electromechanical and electronic technologies. The competence we have built up is based on relevant and continuous application engineering expertise along with the governance of design and critical manufacturing processes.



CONSTANT APPLICATION EXPERIENCE GATHERING

Over years experience in many fields of applications, **Motor Power Company** depth of expertise leads to reliable motors in advanced applications that moves with force, precision and efficiency, guaranteeing excellent performance and energy saving, by supporting design featuring minimal environmental impact industries.



SEE IT BEFORE IT HAPPENS

Our unique selling proposition: **see it before it happens**. Over the years, continuous design and development of innovative products for complex engineering processes has led to the creation of dedicated solutions in specific applications in the field of industrial movement and automation.

Our mission is anticipating customer and market needs and implementing our core technologies to introduce innovation that allows dynamics performances and efficient throughput.

TECHNOLOGIES

DIRECT DRIVE TECHNOLOGY

Motor Power Company proposes linear and torque direct drive solutions, ensuring applications boost due to their dynamics enhancing possibilities. Direct drive rotary table, **SKA DDR** and **SKA ROTARY TABLE** achieve efficiency and precision positioning that are difficult to obtain with conventional systems. Linear direct drive technology is available in frameless version, **SKA DDL** electric coil and magnetic track, and in a plug and play version incorporated in **SKA COMPACT** system. **MTR** gearless motorrollers and **smart drives** complete the direct drive technology proposal: less components than the standard kinematic chain ensure high MTBF, system efficiency and increased throughput.

BRUSHLESS SERVOMOTORS

Brushless servomotors are products of tried-and-tested success that Motor Power Company manufacturers thanks to in-company know-how acquired during years of practical experience with motors designing and building. **TETRA COMPACT-ENHANCED** the third generation providing high dynamic response: superior quality standard and international certifications. **TETRA COMPACT EXTREME** controls motion in any outdoor and indoor extreme operation. Do not miss the **TETRA COMPACT 4** series. If battery automation is the need **TETRA COMPACT 4 LOW VOLTAGE** is the answer.

BRUSHED DIRECT CURRENT TECHNOLOGY

The brushed DC architecture of **PENTA**, **ESA** motors and **ROK** gearmotors is our original, most robust and consolidated technologies in the field of motion control. These motors are available in various sizes and with a range of different windings. The selected materials from which brushed DC motors are made guarantee excellent reliability and a long working life. They guarantee a high overload capacity without speed loss as well as rapid response and accurate speed control in low speed and high torque applications. Brushed DC motors and gearmotors are perfect for use in constant speed applications.

DRIVE INTEGRATED SERVOMOTORS

Cutting edge technology for decentralized architecture: all drive integrated servomotors **DUET** series are the result of the wide-ranging experience that Motor Power Company has built over 30 years as market oriented player in the motion control market. Synchronous brushless servomotors permanently excited with built-in drives: **DUET**, **DUET AD**, **DUET FLEXI** and the high voltage models **DUET HV**. Everything you need for moving and controlling an axis is built directly into these highly compact single component: servomotor, feedback and intelligent servo drive featuring CANopen, Ethercat or Profinet networking.



DIRECT DRIVE technology



DIRECT DRIVE LINEAR MOTORS SKA DDL - FRAMELESS

Whenever the motion you need is linear, integrations is a plus and dynamics and precision is essential in your application, linear motors of the series SKA DDL can escalate the throughput of your machine and simplify the design of the machine, ensuring as well a proven energy saving.

Iron core technology

40 - 2400N continuous force

135 - 7200N peak force

Up to 5 m/s speed

Up to 5g (50 m/s²) acceleration

Feedback: SinCos encoder, TTL sensors, absolute optical and magnetic sensors, Hall effect sensors

LINEAR AXIS ALL-IN-ONE SKA COMPACT



SKA Compact allows the integration of linear motion with a complete stage, "plug and play", that encloses primary and secondary elements, linear guides, feedback and a mechanical structure that can be easily embedded in your machine and boost your performances.

Iron core technology

275-550N continuous force

5 m/s speed

Up to 5g (50 m/s²) acceleration

0.01 - 0.1mm accuracy

Plug & play solution, fast and easy to mount

DIRECT DRIVE technology

DIRECT DRIVE TORQUE SERVOMOTORS SKA DDR

Unprecedented performance in terms of torque and acceleration, ideal for technological automation upgrades.

2 Nm to 760 Nm rated torque

Instantaneous peak torque till 2400 Nm

A high-speed operation up to 1200 rpm

IP65 protection rating (Power Pack version)

Feedback: resolver, incremental and absolute encoders, Hall effect sensors

Frameless and Power Pack version

Hollow, male and hollow through shaft versions



DIRECT DRIVE TORQUE SERVOMOTORS SKA ROTARY TABLE

Ideal for applications that demand freedom from backlash and accurate control, to deliver high precision mechanical motion, support high axial loads with uncompromised efficiency.

8Nm to 760Nm rated torque

Up to 2400 Nm instantaneous peak torque

High precision indexing with over 16,000,000 CPR, after interpolation

Absolute accuracy till ±1 arc sec

No backlash for high precision and high speed

Hollow through shaft



MOTOROLLER technology

Gearless motors

MTR - GEARLESS MOTORROLLERS AND DRIVES

Solutions particularly oriented for control, movement, storage and protection of materials and products throughout manufacturing, sorting, warehousing, distribution, consumption and disposal.

Gearless motoroller 46 - 46 AD Cartridge version 800rpm@24-48 Vdc

- Rated power 50 Watt and 115 Watt
- Rated torque 0,6 Nm and 1,35 Nm
- Hall sensors and encoder feedback for higher precision
- Cartridge diameter 46 mm
- Suitable for all 50 mm diameter tube
- 24 and 48Vdc power supply
- Full speed control
- Wide roller customization
- Suitable for 50mm roller tube integration
- Supports two interface options: Analog Velocity and CANopen, compatible with DS301/ DS402 protocols for Industry 4.0 integration.

Gearless power pack motoroller 60 - 800rpm@60 Vdc

- Ready to use motoroller 60mm diameter
- Rated power 235 Watt
- Rated torque 2,8 Nm
- 60Vdc power supply
- Full speed control
- Tube equipped gearless motoroller

Gearless motoroller 76 - Cartridge version 800rpm@48-65 Vdc

- Rated power 260 Watt
- Rated torque 3,1 Nm
- Encoder feedback for higher precision
- Cartridge diameter 76 mm
- 48 and 65 Vdc for power supply
- Full speed control
- Wide roller customization
- Suitable for 80mm roller tube integration



MOTOROLLER technology

Drives

MTR - GEARLESS MOTORROLLERS AND DRIVES

Motor Power Company introduces these perfect matched bundles constituted by gearless motorollers and smart drives.

DMR 50-5/50 dual axes drive

- The perfect matched drive for enhancing motoroller 46 features
- Dual axes operation
- 24 and 48 Vdc operating supply voltage
- Encoder and Hall Sensor feedback
- CanOpen Fieldbus
- RS485 programming interface
- I/O programmability for speed, start and stop control

Lite Pro drive

- Lite Pro drive is ideal for controlling motoroller 60
- 24 and 48 Vdc operating supply
- Voltage
- Encoder and Hall Sensor feedback
- CanOpen Fieldbus
- I/O programmability for speed, start and stop control

DMR 76-10/65

- Motoroller 76 matches drive DMR 76-10/65 for the perfect bundle
- 24 and 65 Vdc operating supply voltage
- Encoder and Hall Sensor feedback
- Profibus Fieldbus
- I/O programmability for speed, start and stop control
- I/O proxy dual loop



MOTOROLLER technology



Geared solution for driving pallet conveyor application

Pallet conveyor MOTOROLLER AND DRIVE

Pallet Conveyor allows efficient transport, accumulation, lifting and sorting of heavy loads as an alternative to forklifts handling.

Pallet Conveyor Motoroller matches drive DMR PC 6/50 for the perfect bundle.

Ready to use pallet conveyor motoroller

Rated power 400 Watt

Planetary gear box ratio 1:45

Tube diameter 70 and 89mm

Conveyor velocity 22,2 m/min (0,37 m/sec) size 70 and 16,2 m/min (0,27 m/sec) size 89

Load up to 1500 Kg

Supply voltage available: 48 Vdc, 230 Vac, 400 Vac

DMR PC 6/50

Dual axes drive

Nominal supply voltage 48 Vdc

Maximum supply voltage 60 Vdc

Nominal current 6A

Peak current 15A

Dimensions 173x105,5x45mm

Operating ambient temperature 0°÷40°C (32°÷104°F)

Profinet and Ethercat Fieldbus

Protection level IP20



DC BRUSHED technology

Brushed D.C. servomotors

ESA

This series is based on consolidated technology and incorporate the latest advances in mechanical design.

0.32 Nm to 15 Nm rated torque

Integrated 4-pole tacho generator

IP54

Dedicated electromagnetic circuit to reduce cogging effect

Multi-segment commutator

Option: brake, encoder



Brushed D.C. motors

PENTA

This series guarantee a high overload capacity without speed loss as well as rapid response and accurate speed control in low speed and high torque applications.

45 W to 1500 W rated output power

IP 54

Insulation class F

Ferrite permanent magnets

Copper-silver commutator

Options: tacho generator, brake, encoder



Brushed D.C. gearmotor

ROK

This series is designed as one single, compact unit with exceptional durability and wear resistance.

45 W to 250 W rated power

Gearbox size 31 mm and 33 mm

Aluminum gearbox casing

Low noise

Direct coupling between servo motor and worm gear for improved efficiency

Planetary gearbox available on request



BRUSHLESS technology



The turnkey brushless

TETRA COMPACT-E

The Tetra Compact-E (Enhanced) series is the third generation of brushless servomotors by Motor Power Company. It is the result of innovative design and production concepts, excellent quality, international certifications, carefully selected components and a wide range of power ratings for highly dynamic, accurate and reliable automation. This product offers many possible configurations of catalogue options.

0.16 Nm to 45 Nm rated torque

50 W to 7 kW rated power

Maximum servomotor speed up to 6000rpm

Built-in 20 bit proprietary absolute magnetic encoder

Options: TTL encoder, absolute multiturn encoder (Hiperface)

Extended ambient operation temperature from -20° C to +40° C

UL [UL 1004], CSA, CE, Rohs certified

Extreme environmental application

TETRA COMPACT-EXTREME

These brushless motors are designed to perform in harsh environments with extreme temperatures (-40°/+80°C) where conventional motors may not be reliable.

They are equipped with materials that can withstand tough conditions, making them ideal for transportation, refrigerated warehouses, defense, and other demanding applications.

Rated output power from 60W to 1600W

Maximum servomotor speed up to 5000rpm

IP 65 on motor body

Built-in feedback resolver 2 poles

Special internal tropical insulation

Stainless steel external screws

Special additional external coating with Primer Extra and Sigma Fast black paint



BRUSHLESS technology

The most recent technology

TETRA COMPACT 4

The TETRA COMPACT 4 series by Motor Power Company marks an exceptional advancement in high-performance brushless servo motors. Engineered and manufactured through extensive applied knowledge and expertise, these servo motors set new benchmarks, reshaping industry standards. Their unique design, 30% shorter than predecessors, maintains exceptional power density, efficiency, and speed, setting a new AC synchronous motor benchmark. Featuring 10-pole servomotors with various feedback options, they offer unmatched quality and a broad power range, ideal for modern machines. Paired with versatile drives from the BL servo series, the TETRA COMPACT 4 excels in diverse applications.

0.16 Nm to 47,75 Nm rated output torque

50 W to 7,5 kW rated output power

Frame sizes 40 - 60 - 80 - 100 - 130 - 150 - 180 mm

Rated speed up to 6000rpm

Resolver, TTL Encoder, Absolute Encoder (Hiperface, EnDat, RS-485)

IP 65 (with oil seal) and class F (155° C)

Ambient operation temperature from -20° C to +40° C

CE, Rohs, Reach, UL file: E468964



24-48 Vdc operation

TETRA COMPACT 4 LOW VOLTAGE

The compact synchronous servomotors with high power density for low voltage applications in many different uses in logistics, medical, agriculture or any device that is battery operated or must respond to specific voltage limitations for safety reasons: Tetra Compact is the perfect combination of compactness, performance and reliability.

From 65W to 2,6kW (0,21 Nm till 10,16 Nm) rated output power

Rated speed up to 6000rpm

Frame sizes 40 - 60 - 80 - 100

Resolver, TTL Encoder, Absolute Encoder

Brake option

Operating ambient temperature: from -20 °C to +40 °C

Low voltage motion control

Certifications: CE, RoHS, REACH, UL (File E216686) - MPC IF 155 Insulation File Marking



E-MOBILITY BRUSHLESS solutions

E-MOBILITY BRUSHLESS solutions

Based on brushless technology our DC low voltage servo motors are designed and developed following specific needs of electric vehicles supplied for e-mobility field.

Our R&D team operating with co-engineering disposition is capable to design and offer motor solutions expressing their advantages in the electric vehicles' application, with proven advantages provided by motors that can operate different motions in cars, scooters, light or leisure vehicles, but even in agriculture or intra logistics, or any other mobility that wish to operate in a sustainable way, abandoning internal combustion engines in favour of electric.



Brushless motor T142.21

Nominal torque 16 Nm

Peak torque 62 Nm

Continuous power @48Vdc 3,4kW

Peak power @48Vdc 13,0kW

Nominal speed @48Vdc 2000 rpm

Brushless motor T142 16.5

Nominal torque 13,2 Nm

Peak Torque 42Nm

Continuous Power @36Vdc 2,3kW

Peak Power @36 Vdc 9,5kW

Nominal Speed @36Vdc 1700 pm

Environmental operating temperature from -40°C to +80°C

Brushless motor TC-E 160 28

Nominal Torque 28,65Nm

Peak Torque 35Nm

Continuous Power @48Vdc 3,0kW

Peak Power @48Vdc 4,4kW

Nominal Speed @48Vdc 1000 pm

SERVODRIVERS

DRIVE BL

SMART SINGLE AND THREE PHASE DRIVES

The BL servo drives support all our direct drive and brushless servomotors and all their available feedback. Numerous integrated software functions make the BL servo drives real all-rounders in drive technology.

Fieldbus on board EtherCAT/PROFINET/CANopen

Universal encoder HIPERFACE®, HIPERFACE DSL®, EnDat 2.2, resolver, digital and analogue incremental encoders

USB and Ethernet as parameterisation interfaces

Highest performance and dynamics internal sampling time < 32 Ms

Single-phase servo drive

Voltage Supply 230 VAC

Rated output current 2,4 and 8 Arms

Maximum output current for

2 sec 6, 12 and 24 Arms

Three-phase servo drive

Voltage Supply 480 VAC

Rated output current 4,8,12,20,40 Arms

Maximum output current for

2 sec from 12 to 100 Arms



DRIVE DA 200A

SMART SINGLE PHASE DRIVES

Smart DA 200A servo drives deliver exceptional performance metrics while maintaining cost-effectiveness, when paired with our industry-leading Tetra Compact 4 and Tetra Compact-Enhanced servo motors. The intuitive setup process minimizes configuration time, allowing technicians to quickly integrate the drives into existing systems.

2 power size available: 400W and 1000W, 1 x 230vac

Fieldbus: Ethercat CoE full implemented

UL 61800-5-1 certified

STO 2 channels SIL3 certified

Nominal speed @48Vdc 2000 rpm

Supported encoder: Tamagawa serial and Nikon serial

Direct output for motor brake control

Auto tuning for the positioning and interpolation application

The D.C. series drives

LITE PRO Servodrive

4-quadrant, DC servo drives are extraordinarily compact and ideal for controlling brushless servo motors, suitable for integration

48 VDC

5 - 10A rated current (15 - 30A peak current)

Encoder feedback

Can Open DS 301/402

Programming of internal script



DRIVE INTEGRATED brushless technology



Brushless drive integrated systems

DUET, DUET AD AND DUET FLEXI

These models are everything you need for moving and controlling an axis is built directly into these highly compact single component: servomotor, feedback and intelligent servo drive featuring CANopen, Profinet or Ethercat networking.



Supply voltage 48 Vdc

Built - in digital drive

60 W to 520 W output power

Brake control

STO SIL 2 (IEC 61508) and PLD CAT. 3

Ethercat, CanOpen and Profinet



The high voltage series

DUET HV

DUET HV is the new high voltage DUET series, a line consisting of brushless servomotor with integrated incorporating as well absolute encoder for uncompromised precision in positioning.

Nominal power supply 560Vdc

Stall torque 1,3 - 2,8 - 4 - 5,6 - 8 - 14 Nm

Nominal speed 3000 rpm

Absolute multi and singleturn encoder

Ethercat



MECHATRONIC SOLUTIONS

LSM - LINEAR SYNCHRONOUS MOTORS

Modular direct drive traction system for reliable and sustainable material handling and logistics sectors. Modular system composed by: SKA DDL frameless motors, drives, encoder and control.

Drastic reduction in noise

No maintenance

No friction

Quick stop

Built-in encoder with 8 mm accuracy

Precise speed control

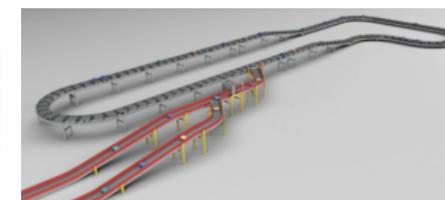
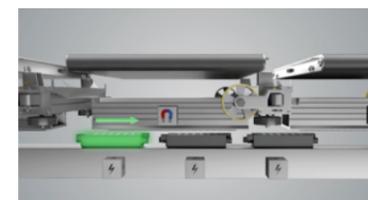
High energy efficiency

Easy to use

Accuracy

Precise speed control

High energy efficiency, easy to use



ILSM - INDEPENDENT LINEAR SYNCHRONOUS MOTOR

A comprehensive full direct drive mechatronic solution, based on independent carriers, operated by linear motors.

Customizable length and shape

Rise in productivity without affecting machine footprint

Process flow optimization

Maximization of efficiency in productivity

Flexibility for future implementations on the machine

Cost cutting thanks to working units reduction

Settable acceleration and deceleration rates, ideal for fragile products

Customizable motion speed

Fast change of setup

Easy-low maintenance, compared to traditional mechanical transfer

Compatibility with every PLC



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